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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,423	08/05/2003	Terrance B. Tripp	31433-039	7947

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EXAMINER	
BIRENBAUM, NIRA S	
ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/634,423	TRIPP ET AL.	
	Examiner	Art Unit	
	Nira S. Birenbaum, Ph.D.	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8-5-2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

In claim 11, the word "consisting" should be inserted between "group" and "of." The word "a" should be deleted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamamitsu (US Patent No. 6,274,061).

Regarding claim 1, Tamamitsu teaches an electrolytic capacitor comprising an anodized valve metal (anodic aluminum foil **2**) which is placed in a low water content polar aprotic solvent containing an ionogen (see, for example, column 4, lines 17-22 and column 5, lines 51-61). A counter electrode (**3**) is also present and a voltage is applied across the two electrodes. The system is cooled to a temperature of -40°C (see, for example, Table 1).

Regarding claim 2, Tamamitsu teaches that the anodized metal is aluminum (**2**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamamitsu in view of Melody *et al.* (US Patent No. 4,812,951).

Tamamitsu teaches the features as previously described. However, regarding claim 3, this reference does not teach a solvent system consisting of either dimethyl formamide or 25% dimethlysulfoixde/75% 4-butyrolactone. Regarding claim 4, Tamamitsu does not teach that the ionogen should be an organic acid.

Meoldy *et al.* teach an electrolyte for an electrolytic capacitor comprising 25% dimethlysulfoixde/75% 4-butyrolactone and maleic acid (column 4, lines 26-32; note that butyrolactone and 4-butyrolactone are the same compound).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the solvents and ionogens disclosed by Melody *et al.* in the system of Tamamitsu, because Melody *et al.* teach that this electrolyte composition provides a very low resistivity and high performance over a wide temperature range and it does not contain toxic materials (column 2, lines 18-25).

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamamitsu in view of Ohsawa *et al.* (US Patent No 4,948,685).

Tamamitsu teaches the features as previously described. However, this reference does not teach adding a monomer precursor to the electrolyte solution. Ohsawa *et al.* teach a method for producing a polymer-coated electrode wherein an aluminum sheet with a native oxide layer (see column 6, lines 52-61) is placed in an electrolytic cell containing a solvent and a monomer precursor (column 7, lines 22-29).

Regarding claim 6, Ohsawa *et al.* teach that the monomer can be aniline (column 7, lines 3-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Tamamitsu by adding a monomer precursor such as aniline to the electrolyte as taught by Ohsawa *et al.*, in order to create a polymer coating on the electrode, because Ohsawa *et al.* teach that such a coating has a high stability against oxidation by air and water (column 1, lines 18-25).

Regarding claim 7, Tamamitsu teaches that the anodized metal is aluminum (**2**).

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamamitsu in view of Ohsawa *et al.* as applied to claim 5 above, and further in view of Melody *et al.*

Tamamitsu and Ohsawa *et al.* teach the features as previously described. However, regarding claim 8, these references do not teach a solvent system consisting of either dimethyl formamide or 25% dimethlysulfoixde/75% 4-butyrolactone. Regarding claim 9, the references do not teach that the ionogen should be an organic acid.

Meoldy *et al.* teach an electrolyte for an electrolytic capacitor comprising 25% dimethlysulfoixde/75% 4-butyrolactone and maleic acid (column 4, lines 26-32; note that butyrolactone and 4-butyrolactone are the same compound).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the solvents and ionogens disclosed by Melody *et al.* in the system of Tamamitsu in view of Ohsawa *et al.*, because Melody *et al.* teach that this electrolyte

composition provides a very low resistivity and high performance over a wide temperature range and it does not contain toxic materials (column 2, lines 18-25).

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamamitsu in view of Hesse *et al.* (US 2003/0098240).

Tamamitsu teaches the features as previously described. However, this reference does not teach adding a metal salt to the electrolyte solution. Hesse *et al.* teach a method for producing colored aluminum oxide surfaces wherein an anodized aluminum substrate is placed in an electrolyte containing an alkanesulfonate of silver and a potential is applied (paragraphs 18 and 19). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Tamamitsu by incorporating a silver salt in the electrolyte as taught by Hesse *et al.*, in order to obtain a gold-colored aluminum oxide layer for decorative purposes, as disclosed by Hesse *et al.* (paragraph 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nira S. Birenbaum, Ph.D. whose telephone number is (571) 272-8516. The examiner can normally be reached on M-F 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

nsb

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